Docket No.: 65856-0025
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Scott A. Sirrine

Application No.: 09/736,232 | Confirmation No.: 9140

Filed: December 14, 2000 | Art Unit: 2128

For: DRIVELINE ANGLE ANALYZER | Examiner: H. D. Day

APPELLANT'S BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This brief is responsive to the Examiner's Advisory Action mailed June 5, 2007 (hereinafter "Advisory Action"); the Examiner's Final Rejection mailed March 16, 2007 (hereinafter the "Final Office Action") of claims 1-7 and 9-17 in the above-identified application; and the Notice of Panel Decision from Pre-Appeal Brief Review mailed on August 30, 2007. A Notice of Appeal was timely filed on July 16, 2007.

The fees required under § 1.17(f) and any required petition for extension of time for filing this brief and fees thereof are addressed in the accompanying TRANSMITTAL OF APPEAL BRIEF.

This is an Appeal Brief under Rule 41.37 appealing the decision of the Examiner dated March 16, 2007. Each of the topics required by Rule 41.37 is presented herewith and is labeled appropriately.

Table of Contents

I. REAL PARTY IN INTEREST

The real party in interest for this appeal is Eaton Corporation, having its principal place of business at 1111 Superior Avenue, Cleveland, Ohio, 44114-2584.

II. RELATED APPEALS AND INTERFERENCES

Appellant filed a Pre-Appeal Brief on July 16, 2007 and received a Notice of Panel Decision from Pre-Appeal Brief Review (mailed on August 30, 2007). There are no other appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

Claims 1-7 and 9-21 are currently pending in the present application and all stand fully rejected. Appellant appeals from the continued rejection of claims 1-7 and 9-21, which claims are presented in Appendix A, Claims Appendix.

IV. STATUS OF AMENDMENTS

After receiving the Final Rejection, Appellant filed a Response After Final Rejection, pointing out the differences between the recitations as claimed in claims 1-7, 9-21, and the cited prior art. In the Response After Final Rejection, Appellant did not propose any amendments. The Examiner responded to the Response After Final Rejection in an Advisory Action mailed June 5, 2007. Appellant subsequently filed a Notice of Appeal and Pre-Appeal Brief on June 16, 2007.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The presently claimed invention includes various methods, systems, and computer programs disposed on computer readable media. The following is a concise explanation of the subject matter defined in each of the claims involved in the appeal, as required by 37 C.F.R. § 41.37(c)(1)(v). In general, the following explanation is not intended to be used to construe or limit the claims, which are believed to speak for themselves, nor do Appellants intend the following explanation to modify or add any claim elements, or to constitute a disclaimer of any

equivalents to which the claims would otherwise be entitled, nor is any discussion of certain preferred embodiments herein intended to disclaim other possible embodiments. References herein to the Specification are intended to be exemplary and not limiting. Reference numbers provided below are reference numbers used in Appellants' specification and drawings.

An embodiment of independent claim 1 includes a method of determining at least one of a torsional acceleration and an inertia of a vehicle driveline configuration (paragraph [0007]). The method includes entering measurements for the vehicle driveline configuration into a graphical user interface program (paragraph [0029]). The method also includes determining an inertia of the vehicle driveline based on the entered measurements (paragraph [0049], [0050]).

An embodiment of independent claim 7 includes a method of diagnosing and correcting driveline angles and lengths of components of a vehicle driveline. (paragraph [0056]). The method also includes selecting a representative vehicle driveline from a plurality of saved driveline configurations (paragraph [0032]). The method also includes entering measurements of the vehicle driveline into a graphical user interface program (paragraph [0007]). The method also includes determining an inertia of the vehicle driveline based on the entered measurements of the driveline angles and lengths of the components (paragraphs [0049], [0050]). The method also includes enabling a user to interactively change the entered measurements of the vehicle driveline to determine one of the torsional acceleration and the inertia of the vehicle driveline (paragraph [0058]).

An embodiment of independent claim 12 includes a method of determining one of a torsional acceleration and a driveline inertia of a desired vehicle driveline configuration (paragraph [0007]). The method also includes selecting a vehicle driveline configuration from a plurality of driveline configurations (paragraph [0032]). The method also includes entering measurement data for the desired vehicle driveline configuration (paragraph [0036]). The method also includes determining the driveline inertia of the desired vehicle driveline configuration based on the entered measurements (paragraph [0049], [0050]). The method also includes displaying a driveline inertia of the desired vehicle driveline configuration (paragraph [0050]).

An embodiment of dependent claim 20 includes the method of claim 12 wherein the driveline inertia is a coast inertia (paragraph [0052]).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Whether claims 1-7 and 9-21 are unpatentable under 35 U.S.C. § 103(a) over *Eaton Truck Components Bulletin TRIB-9701, (1997), including the DAA Program* (hereinafter "Bulletin") in view of U.S. Patent Number 5,848,371 (hereinafter "Creger").

The following issues ("Issues") presented in this appeal are:

(1) Bulletin and Creger cannot be properly combined because neither teaches that inertia is equivalent to torque.

(2) Bulletin and Creger cannot be properly combined because the acceleration taught in Bulletin cannot be equated to the acceleration taught in Creger.

(3) Neither Bulletin nor Creger teach "determining an inertia" "based on entered measurements."

(4) Neither Bulletin nor Creger teach a coast inertia.

VII. ARGUMENT

Each of the remarks in regard to Issues 1-3 are directed to the rejected claims 1-7 and 9-21. The remarks in regard to Issue 4 are directed to claim 20.

The Examiner has erred regarding elementary concepts of physics and statements within the references that clearly illuminate their teachings, as detailed in the remarks included in Issues 1-4, in turn, below.

A. The Law

With respect to Section 103 rejections, the Examiner has a burden of stating a prima facie case of obviousness. A prima facie case of obviousness has historically required that:

> First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

MPEP, § 2143 (citing In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

So long as the first requirement for a prima facie case of obviousness is not rigidly applied, requiring the Examiner to show some reason for combining prior art references is consistent with the United States Supreme Court's recent decision in KSR International Co. v. Teleflex, Inc., 550 U.S. ___, (April 30, 2007) (citations herein are taken from the Court's Bench Opinion). In KSR, the Supreme Court stated that "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." (Id. at 12.) Additionally the court stated that

> it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known.

(Id. at 15.) The Court further explained that

> What matters is the objective reach of the claim. If the claim extends to what is obvious, it is invalid under §103. One of the ways in which a patent's subject matter can be proved obvious is by noting that there existed at the time of invention a known problem for which there was an obvious solution encompassed by the patent's claims.

(Id. at 16.)

Accordingly, the Court made clear that "a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known and in the prior art." (Id. at 14.) In summary, KSR plainly does not disturb the well-settled proposition that a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984); M.P.E.P § 2141.02.

Further, "[t]o establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). M.P.E.P. § 2143.03. *Accord.* M.P.E.P. § 706.02(j).

B. The Issues

1. <u>Issue 1: Inertia is not Equivalent to Torque</u>

Independent claims 1, 7, and 12 positively recite determining an "inertia." Inertia is not torque, torque is not inertia, and any contention that the two can be equated contradicts solidly established canons of elementary physics. The remarks below may repeat certain statements made in the Pre-Appeal Brief submitted on July 16, 2007. However, since the Panel did not address the statements, they are submitted herein for consideration by the Board.

a. Inertia is not torque

Appellant's independent claims each recite a step of determining a vehicle driveline inertia. The Examiner has located a reference (Creger) where a driveline torque is determined. In the Final Office Action, the Examiner states "torque (driveline inertia) is determined." However, the Examiner also erroneously states (in articulating a purported motivation for the combination of references) that torque and inertia are equivalent "because torque (driveline inertia) is proportional to the already determined acceleration." (page 3, lines 11-12 and 20-21).

In the Final Office Action, the examiner contends (in commenting on the Appellant's arguments in the non-Final Office Action of September 25, 2006) that in view of "inertia, which is measured in foot pounds (ft-lbs)," and "[b]ased on the unit used for the disclosed driveline inertia, it is **obvious the disclosed driveline inertia in this instant application represents a torque**." (Final Office Action, page 14, lines 2-4, **emphasis added**). Accordingly, the Examiner rejected the pending claims by incorrectly concluding that the alleged teaching of determining a torque in Creger is equivalent to determining an inertia, as recited in the pending claims.

Foot-Pound Mass Does Not Equal Foot-Pound Torque

Admittedly, both inertia and torque are commonly referred to in units of foot-pounds (as the Examiner has identified in the above quote from page 14 of the Final Office Action). However, inertia is commonly calculated in units of kilogram-meter, or foot-pound **mass** (ft-lbm), whereas torque is generally measured in units of Newton-meter, or foot-pound **force** (ft-lbf). Importantly, Appellant cannot locate any reference that presents inertia in ft-lbf, or any reference that measures torque in ft-lbm.

The McGraw Hill Dictionary of Scientific and Technical Terms[1] defines inertia as: "that property of matter which manifests itself as a resistance to any change in the momentum of a body." Therefore, inertia requires only mass (lbm) and volume which are, significantly, a property of all matter. An object in outer space would have inertia since weight (lbf) is of no import (the acceleration due to gravity acting on an object does not affect the inertia of the object).

The McGraw Hill Dictionary of Scientific and Technical Terms[2] also defines torque as: "for a single force, the cross product of a vector from some point of reference to the point of application of the force with the force itself." Therefore, torque requires a force (lbf) acting on an object.

Accordingly, torque on an object is the result of an outside influence on the object while inertia is a property of all matter regardless of outside influences. An object, such as a specific vehicle driveline, may have zero torque, but the object always has inertia. As the torque acting on an object increases, inertia is unchanged. Significantly, Creger mentions a "torque due to accelerating inertia" (Creger, column 5, lines 56-57), which further undermines the Examiner's incorrect conclusion that torque and inertia are interchangeable.

Further, the Examiner states (with reference to Creger) that "the relationship between torque (driveline inertia) and ACCELERATION is I_{MN}." (Final Office Action, page 3, line 14). However, Creger tellingly identifies I_{MN} as inertia. (Creger, column 5, lines 60-65). Since the Examiner states that "Creger discloses ... torque (driveline inertia) is determined by multiplying IMN and ACCELERATION," (Final Office Action, page 3, lines 9-12), the Examiner has concluded that **inertia multiplied by acceleration is inertia**, which is false both

[1] Fourth Edition, copyright, 1989.

under the laws of physics and the teachings of Creger. The teachings before the Examiner clearly demonstrate that torque and inertia are not equivalent, but are related in some calculation that includes acceleration.

The Examiner further errs by using the incorrect conclusion that torque and inertia are equivalent to support a motivation to combine the references to reject all the pending claims (Final Office Action, page 3, lines 18-22), and to purportedly identify all recitations of the claims in the references (Final Office Action, page 3, lines 11-12). Accordingly, the Examiner's support for a *prima facie* case of obviousness under 35 U.S.C. § 103 (See MPEP 2143) is entirely premised upon a gross misunderstanding of the principles of physics. Torque does not equal inertia and the Examiner's assumption that the two are interchangeable cannot support a motivation to combine the references to reject the pending claims for obviousness. For at least these reasons, the 35 U.S.C. § 103 rejection of Appellant's pending claims is improper.

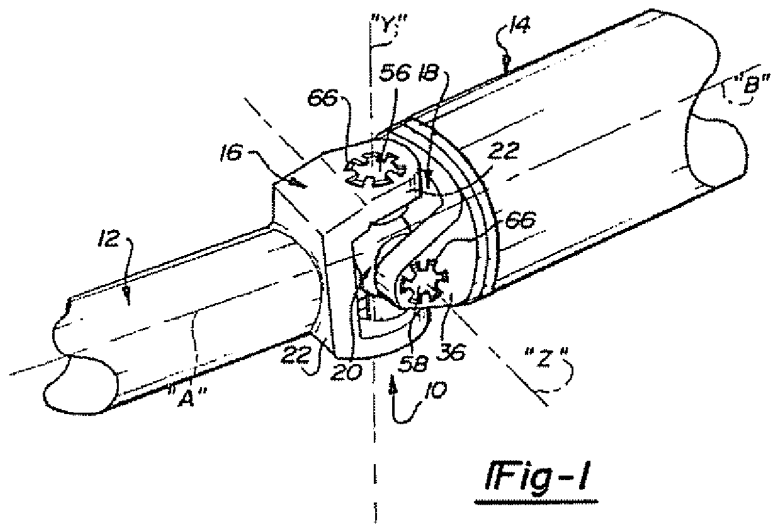
2. Issue 2: The acceleration of Bulletin is not the acceleration of Creger

Independent claims 1, 7, and 12 positively recite determining an "inertia." The acceleration of Bulletin (resulting from driveline angularity) is not the same as the acceleration (increase in rotational speed) of Creger, as detailed below. The Examiner's prima facie case of obviousness using the combination of Bulletin and Creger hinges upon whether the acceleration that is calculated in Bulletin is interchangeable with the acceleration mentioned in Creger.

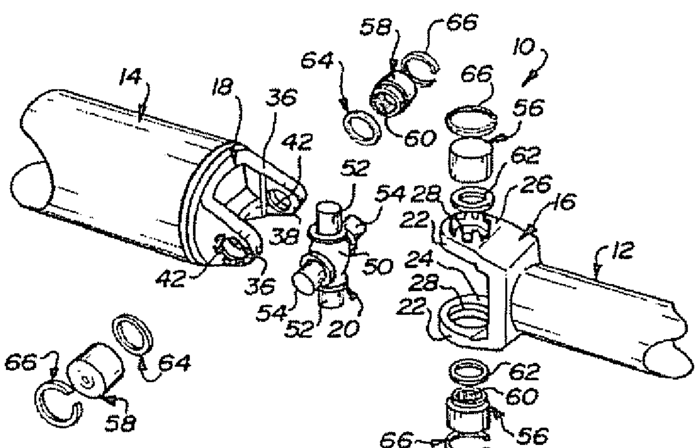
a. U-joint acceleration as a result of driveline angularity taught in Bulletin

The Examiner contends that Bulletin teaches "the Eaton DAA program to determine U-joint acceleration." Importantly, Bulletin states "the Eaton DAA program is used to determine u-joint acceleration (as a result of driveline angularity)." (Eaton Truck Components Bulletin, page 1, line 9). Appellant submits that one of skill in the art would recognize that the u-joint acceleration that is altered with (or dependent on) driveline angularity is due to the relative angle between the shafts connected to the u-joint.

Consider a simple 4-cap u-joint with a central 4-prong star, as shown in the "screen captures of the DAA program," and illustrated in the example below:



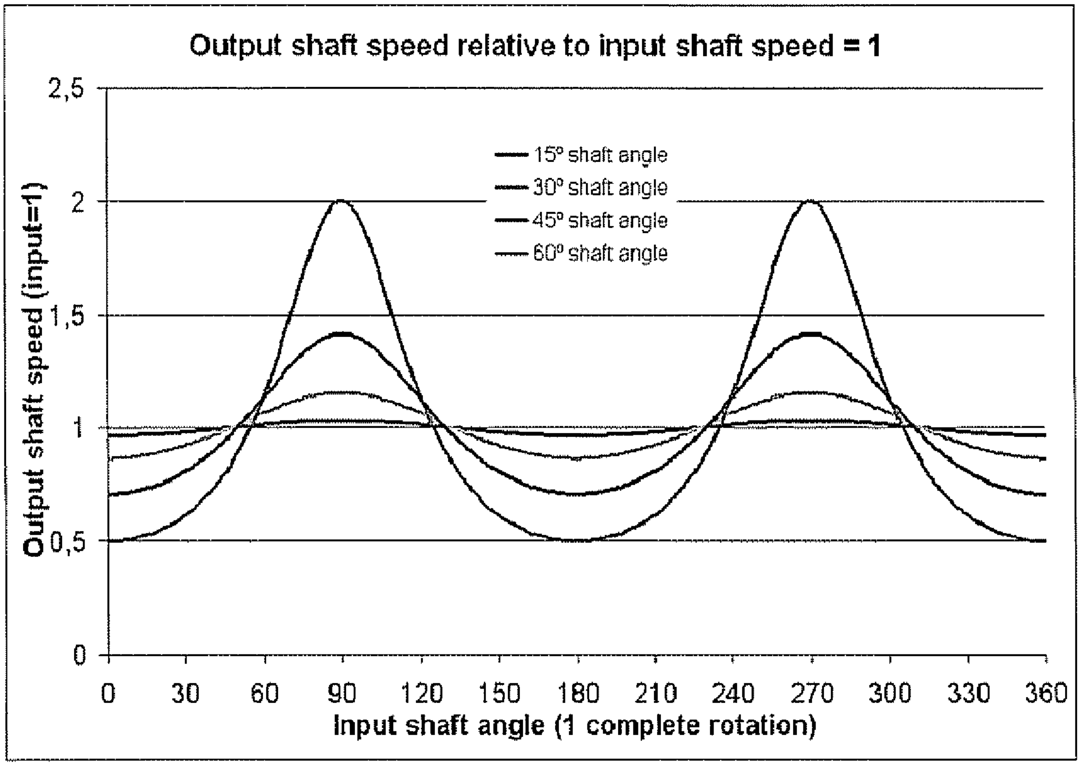
IFig-1



IFig-2

A basic principle of any universal joint (u-joint) is that the u-joint will permit a first shaft having a first shaft axis to transmit torque to a second shaft having a second shaft axis when the first shaft axis and the second shaft axis are orientated relative to each other at an angle. When the two shafts are "aligned" the first shaft axis and the second shaft axis are co-axial and the central portion of the joint will rotate at about the same speed as the first shaft and the second shaft. When the first shaft and the second shaft are configured at an angle where the first shaft axis and

the second shaft axis are orientated at an angle other than zero degrees and the first shaft is rotated at a constant rpm, the second shaft will oscillate in speed at values above and below the speed of the first shaft in a generally sinusoidal pattern as illustrated below. Therefore, the second shaft will accelerate and decelerate as the first shaft is rotated at a constant rpm.



When viewed from the perspective of the first shaft, two opposing caps of the u-joint are connected to the first shaft while the other two opposing caps are connected to the second shaft. As the first shaft rotates while the first shaft axis is orientated at an angle relative to the second shaft axis, the two opposing caps of the u-joint that are connected to the first shaft rotate with the first shaft while the other two opposing caps oscillate relative to the first shaft axis. This oscillation causes the other two opposing caps to accelerate and decelerate relative to the first shaft. Further, the u-joint prongs within the two opposing caps accelerate and decelerate relative to the first shaft. The second shaft will also accelerate and decelerate relative to the first shaft, which is why a driveline typically includes a first shaft connected to a first u-joint connected to a second shaft connected to a second u-joint connected to a third shaft. When the axis of the first

shaft is parallel to the axis of the third shaft, the speed of the first shaft is identical to the speed of the third shaft, while the speed of the second shaft oscillates, or accelerates and decelerates, with respect to the speed of the first and third shafts. This rotational acceleration and rotational deceleration is due to the driveline angularity, or relative angle between the shafts.

Accordingly, the "u-joint acceleration" as a result of driveline angularity taught in Eaton Truck Components Bulletin, page 1, line 9 refers to the angular, or torsional, acceleration of a particular component within a driveline due to a relative angular orientation of a u-joint when viewed from the perspective of a component that is rotating at a constant speed. This acceleration is **not** caused by an acceleration of the engine due to the increase in engine speed.

b. The "acceleration" taught in Creger

The Examiner states that "Creger discloses ... torque (driveline inertia) is determined by multiplying I_{MN} and ACCELERATION," and "after acceleration has been determined by the Eaton DAA program the torque (driveline inertia)[2] can be determined by multiplying I_{MN} and the determined acceleration." (Final Office Action mailed March 16, 2007, page 3, lines 9-12, and page 3, line 21 to page 4, line 1). Therefore, the Examiner erroneously contends that one of skill in the art would understand that the acceleration taught in Bulletin is interchangeable with the acceleration of Creger.

In direct contrast, Creger states "ACCELERATION is the rotational acceleration of the engine output shaft." (Creger, column 5, lines 63-64). Thus, Creger **clearly teaches** an acceleration that is not dependent upon the angularity of the shafts or u-joints, as taught in Bulletin, but instead as relates to the rotational acceleration of the engine output shaft.

c. Acceleration due to U-Joint Angularity does not Equal Engine Acceleration

The Examiner's *prima facie* case of obviousness using the combination of Bulletin and Creger hinges upon whether the acceleration that is calculated in Bulletin is interchangeable with the acceleration mentioned in Creger. However, as detailed in subsections a and b above, the acceleration of Creger exists only with a change of rotational speed of the engine, whereas

[2] The Examiner's mischaracterization of torque being equated to driveline inertia is addressed within the remarks directed to Issue 2, herein.

the acceleration of Bulletin exists only with an offset angle between rotating components. To reiterate the differences using a simple example, when all shafts in a driveline are aligned, that is, with co-axial axes, the "u-joint acceleration" taught in Eaton Truck Components Bulletin is zero, while the "acceleration" in the shafts and u-joints due to an increase or decrease in speed of the engine is the same as the engine acceleration. Accordingly, one of skill in the art would not combine the teachings of bulletin and Creger because the acceleration that is calculated in Bulletin is not interchangeable with the acceleration mentioned in Creger.

3. **Issue 3: The combination of Bulletin and Creger does not teach "determining an inertia" "based on entered measurements"**

Measurements are not used in either Bulletin or Creger to determine inertia.

a. **The Examiner admits that Bulletin does not teach "determining an inertia"**

The Examiner states that Bulletin "fails to expressly disclose determining an inertia of the vehicle driveline based upon entered measurements." (Final Office Action, 2007, page 6, lines 1-3).

b. **Creger does not teach 'determining an inertia' "based on entered measurements"**

Independent claims 1, 7, and 12 positively recite determining an "inertia" of a driveline "based on entered measurements." The Examiner admits that "Eaton fails to expressly disclose determining an inertia of the vehicle driveline." (Final Office Action mailed March 16, 2007, page 3, lines 5-6) The Examiner erroneously contends that Creger teaches that "as shown in equation 9, driveline inertia is determined by multiplying I_{MN} and ACCELERATION" (Id. Page 6, lines 12-14) However, in direct contrast to the assertions by the Examiner, Creger teaches in Equation 9 that torque may be calculated by multiplying I_{MN} and ACCELERATION. (See Creger column 5, lines 56-60, demonstrating that Equation 9 provides "$T_{DRIVELINE\text{-}INERTIA\text{-}N}$ is the torque.")

Additionally, the Examiner contends that Creger teaches that "the relationship between driveline inertia and ACCELERATION is I_{MN}, which is a calculated constant." (Final Office Action mailed September 25, 2006, page 6, lines 15-16) However, a close reading of

Creger reveals that **I_{MN} is inertia** and the relationship between torque and ACCELERATION is I_{MN}. (Creger, column 5, lines 55-65). Accordingly, driveline inertia is not taught in Creger to be proportional to acceleration, which is the basis for the Examiner's incorrect conclusion that Equation 9 of Creger teaches determining inertia.

The Examiner is correct in that Creger teaches "I_{MN} is a calculation based upon predetermined lumped inertia constants and gear reductions." (Final Office Action mailed March 16, 2007, page 3, lines 12-13) However, this specific teaching of Creger clearly demonstrates that Creger teaches that inertia is a constant for the purposes of the torque determination of Creger. Nowhere in Creger is inertia determined by using measurements.

Further, Equation 10 of Creger teaches away from "determining an inertia of the vehicle driveline based on the entered measurements," by illustrating in Equation 10 that inertia is determined by summing lumped inertia constants. Creger does not teach determining an inertia based upon measurements, but based upon known constants for a known driveline configuration. Accordingly, one of skill in the art would recognize that Creger would not be useful in "determining an inertia of the vehicle driveline based on the entered measurements," because Creger does not mention this determination or provide any direction on how to make this determination using measurements. Thus, the combination of Bulletin and Creger does not teach every recitation of at least independent claims 1, 7, and 12.

c. Because all Claim Recitations are not Taught in the Prior Art, The Examiner Fails to Make a *Prima Facie* Case of Obviousness

The Examiner states that Bulletin "discloses using the Eaton DAA program to determine u-joint acceleration based upon the entered measurements." (Final Office Action mailed March 16, 2007). At best, Creger teaches determining a torque (which is not inertia as detailed in Issue 1 above) determination by multiplying an inertia constant by engine acceleration. (*See generally*, Creger, Abstract, *and specifically*, Creger, Column 5, line 55 to column 6, line 28). Further, the acceleration of Bulletin is not the same as the acceleration of Creger, as detailed in Issue 2 above. Therefore, any combination of Bulletin and Creger, as understood by one of skill in the art, would not teach "determining an inertia."

As detailed in Subsections a and b above, neither Bulletin nor Creger teach determining an inertia based on measurements. Additionally, the combination of Bulletin and

Creger cannot teach measurements that are taken to determine an inertia. Accordingly, the Examiner has failed to establish a prima facie case since all claim recitations are not taught in the prior art.

4. Issue 4: The combination of Bulletin and Creger does not teach a Coast Inertia

The following subsection addresses claim 20. Coast inertia, as understood by one of skill in the art, is not mentioned in either Bulletin or Creger.

a. Coast inertia is explicitly not taught in Creger.

Dependent claim 20 positively recites the "method of Claim 12, wherein the driveline inertia is a coast inertia." The Examiner contends that "Creger further discloses wherein the driveline inertia is a coast inertia (the lumped driveline inertia, column 3, lines 13-15)." However, the Examiner's cited passage of Creger complements the text of column 5, line 55 to column 6, line 10, where the engine of Creger is accelerating and not coasting.

Importantly, the Appellant's specification states:

> Typically, there are two overall system inertia values, drive and coast. Drive inertia occurs when power is being supplied by the engine through the transmission to the drive train. Coast inertia occurs when the vehicle is coasting and power is being supplied by the inertia of the vehicle and passing back through the axles to the rest of the drive train.

Appellant's specification, paragraph [0004].

Accordingly, one of skill in the art would recognize that any inertia taught in Creger could not be a coast inertia since Creger never recognizes that the driveline inertia may change for a driveline depending upon whether the driveline is in a drive configuration or in a coast configuration (when power is being supplied by the inertia of the vehicle and passing back through the axles to the rest of the drive train). Accordingly, the Examiner has failed to establish a *prima facie* case of obviousness because the prior art does not mention a 'coast inertia.'

VIII. CLAIMS APPENDIX

A copy of the claims involved in the present appeal is attached hereto as Appendix A, Subtitled 'Claims Appendix'.

IX. EVIDENCE APPENDIX

There is no evidence attached hereto as Appendix B, Subtitled 'Evidence Appendix'.

X. RELATED PROCEEDINGS APPENDIX

There are no related proceedings listed in Appendix C, Subtitled 'Related Proceedings Appendix'.

XI. CONCLUSION

In view of the foregoing argument, it is submitted that the final rejections of the pending claims are improper and should not be sustained. Therefore, a reversal of the final rejections of March 16, 2007 is respectfully requested.

Appellant believes that no fee is due with this Appeal Brief. However, if a fee is due, please charge our Deposit Account No. 18-0013, under Order No. 65856-0025 from which the undersigned is authorized to draw. To the extent necessary, a petition for extension of time under 37 C.F.R. § 1.136 is hereby made, the fee for which should be charged to the above account.

Dated: October 30, 2007

Respectfully submitted,

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APPENDIX A

Claims Appendix

Claims Involved in the Appeal of Application Serial No. 09/736,232

1. A method of determining at least one of a torsional acceleration and an inertia of a vehicle driveline configuration comprising the steps of

entering measurements for the vehicle driveline configuration into a graphical user interface program; and

determining an inertia of the vehicle driveline based on the entered measurements.

2. The method of Claim 1, further including the step of selecting a representative vehicle driveline configuration from a plurality of driveline configurations prior to entering measurements of the vehicle driveline configuration into the graphical user interface program.

3. The method of Claim 1, wherein the graphical user interface program includes a corrective mode for enabling a user to interactively change the entered measurements of the vehicle driveline configuration to determine one of the torsional acceleration and the inertia of the vehicle driveline configuration.

4. The method of Claim 1, further including the step of printing a worksheet to aide a user in entering of the measurements for the vehicle driveline configuration.

5. The method of Claim 1, further including the step of printing results from the determination of the inertia for the vehicle driveline configuration.

6. The method of Claim 1, further including the step of saving results from the determination of the inertia for the vehicle driveline configuration as an image file.

7. A method of diagnosing and correcting driveline angles and lengths of components of a vehicle driveline, comprising the steps of:

selecting a representative vehicle driveline from a plurality of saved driveline configurations;

entering measurements of the vehicle driveline into a graphical user interface program;

determining an inertia of the vehicle driveline based on the entered measurements of the driveline angles and lengths of the components; and

enabling a user to interactively change the entered measurements of the vehicle driveline to determine one of the torsional acceleration and the inertia of the vehicle driveline.

8. (Canceled)

9. The method of Claim 7, further including the step of printing a worksheet to aide a user in entering of the measurements for the vehicle driveline.

10. The method of Claim 7, further including the step of printing results from the determination.

11. The method of Claim 7, further including the step of saving results from the determination as an image file.

12. A method of determining one of a torsional acceleration and a driveline inertia of a desired vehicle driveline configuration, comprising the steps of:

selecting a vehicle driveline configuration from a plurality of driveline configurations;

entering measurement data for the desired vehicle driveline configuration;

determining the driveline inertia of the desired vehicle driveline configuration based on the entered measurements; and

displaying a driveline inertia of the desired vehicle driveline configuration.

13. The method of Claim 12, further including the step of enabling a user to interactively change the entered measurements of the desired vehicle driveline configuration to determine the torsional acceleration of the vehicle driveline configuration.

14. The method of Claim 12, further including the step of printing a worksheet to aide a user in entering of the measurements for the desired vehicle driveline configuration.

15. The method of Claim 12, further including the step of printing results from the determination the driveline inertia for the desired vehicle driveline configuration.

16. The method of Claim 12, further including the step of saving results from the determination of the driveline inertia for the desired vehicle driveline configuration as an image file.

17. The method of Claim 1, further comprising selecting a representative vehicle driveline from a plurality of saved driveline configurations, wherein the step of selecting includes comparing a picture of a selectable driveline configuration to the vehicle driveline.

18. The method of Claim 7, wherein the step of selecting includes comparing a picture of a selectable driveline configuration to the vehicle driveline.

19. The method of Claim 12, wherein the driveline inertia is a drive inertia.

20. The method of Claim 12, wherein the driveline inertia is a coast inertia.

21. The method of Claim 12, further comprising selecting a representative vehicle driveline from a plurality of saved driveline configurations.

Appendix B

IX. Evidence Appendix

Evidence Involved in the Appeal of Application Serial No. 09/736,232:

None

Appendix C

X. Related Proceedings Appendix

None.

R0453894.DOC